

Trail Crew Management



Session Objectives

Learn Basic Crew Management Activities

- ☐ Understand Crew Organization
- ☐ Identify Types of Crews
- ☐ Crew Operations
 - ☐ Recruitment and Retention
 - ☐ Safety
 - ☐ Training
- ☐ Types of Crew and Trail Project Management



Understand Basic Work Crew Organization

- All Trail Crews and Trail Projects will Break into Operational Roles
 - They can Develop on their Own or You can Pre-Identify them for Easier Project Management
- Crew Management Has the Following Identified Roles:
 - Project Manager
 - Technical Supervisor
 - Crew Leader
 - Crew Members

Management and Mutiny

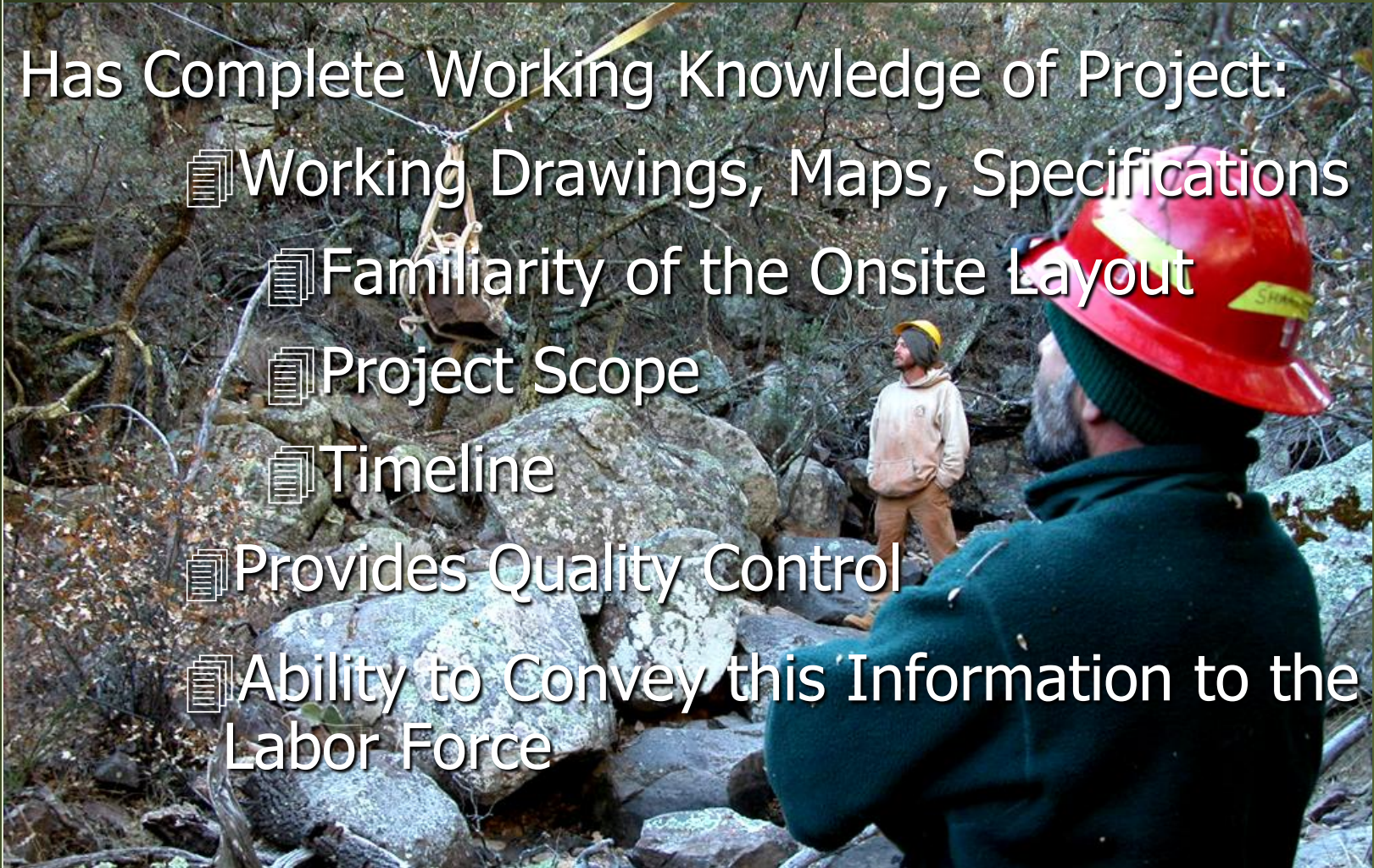


Work Crew Role Definitions

Technical Supervisor:

Has Complete Working Knowledge of Project:

- Working Drawings, Maps, Specifications
- Familiarity of the Onsite Layout
- Project Scope
- Timeline
- Provides Quality Control
- Ability to Convey this Information to the Labor Force



Work Crew Role Definitions

Technical Supervisor:

Has Complete Working Knowledge of Project:

- Identifies and/or Obtains Specialized Tools and Equipment Needs / works with Leader
- Provides or Identifies Needed Skills and Training Required for Project Completion
- Identifies Logistical Needs
- Develops Project Implementation Components/Construction Time Line



Work Crew Role Definitions

Crew Leader:

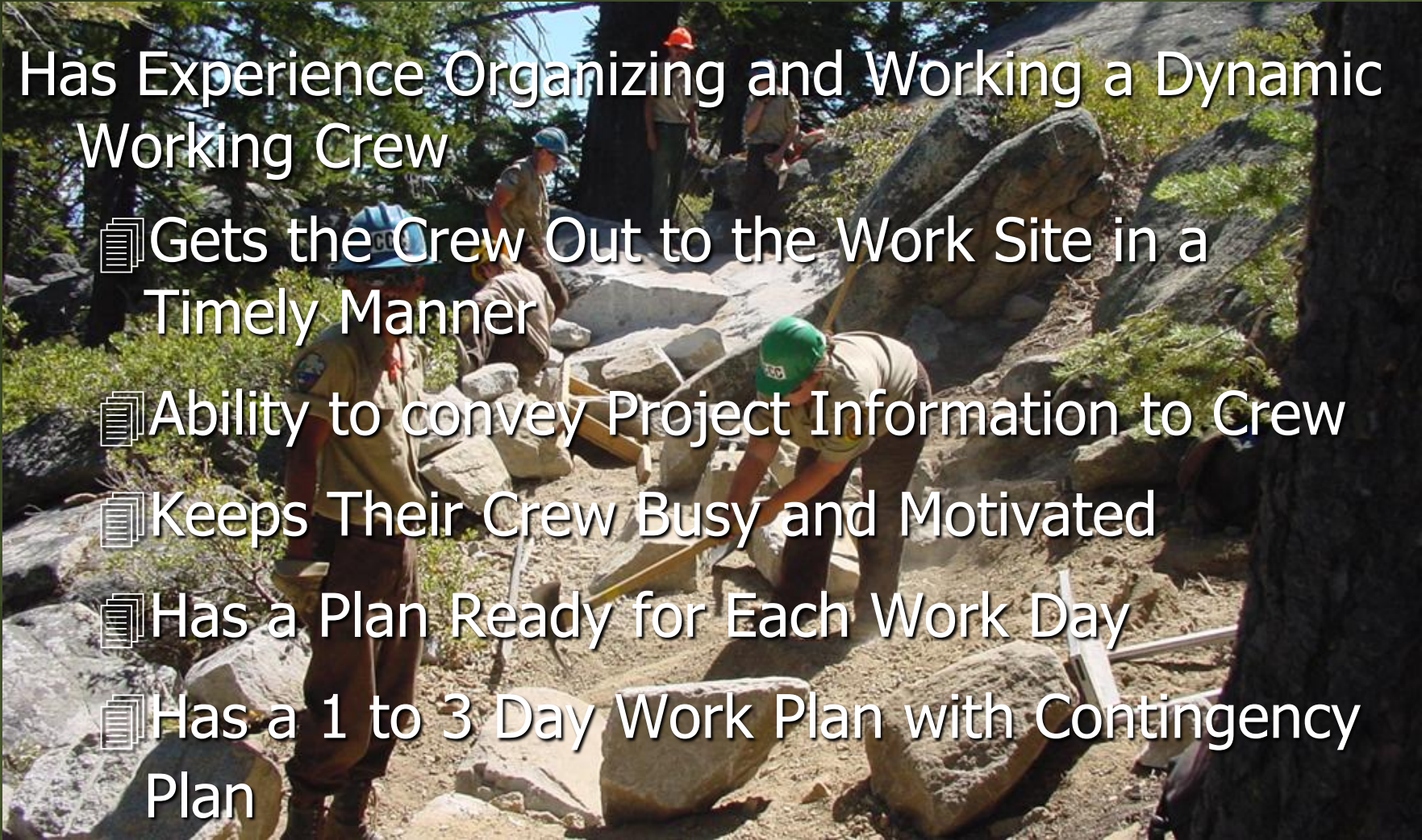
- 
- A photograph of three people in a field of tall grass and brush. One person in a blue jacket and red hard hat is writing on a clipboard. Another person in a grey jacket and white cap is looking on. A third person in a dark jacket and hat is partially visible in the background.
- ❏ Knows the Logical Stages of the Project Completion
 - ❏ Identifies what Tools, Equipment and Materials are Needed to Continue Working
 - ❏ Develops a Team with the Technical Supervisor
 - ❏ Identifies Crew Needed Training and Technical Needs for Project Components

Work Crew Role Definitions

Crew Leader:

Has Experience Organizing and Working a Dynamic Working Crew

- 📋 Gets the Crew Out to the Work Site in a Timely Manner
- 📋 Ability to convey Project Information to Crew
- 📋 Keeps Their Crew Busy and Motivated
- 📋 Has a Plan Ready for Each Work Day
- 📋 Has a 1 to 3 Day Work Plan with Contingency Plan



Work Crew Role Definitions

Crew Leader:

📄 Develops a Team with the Technical Supervisor

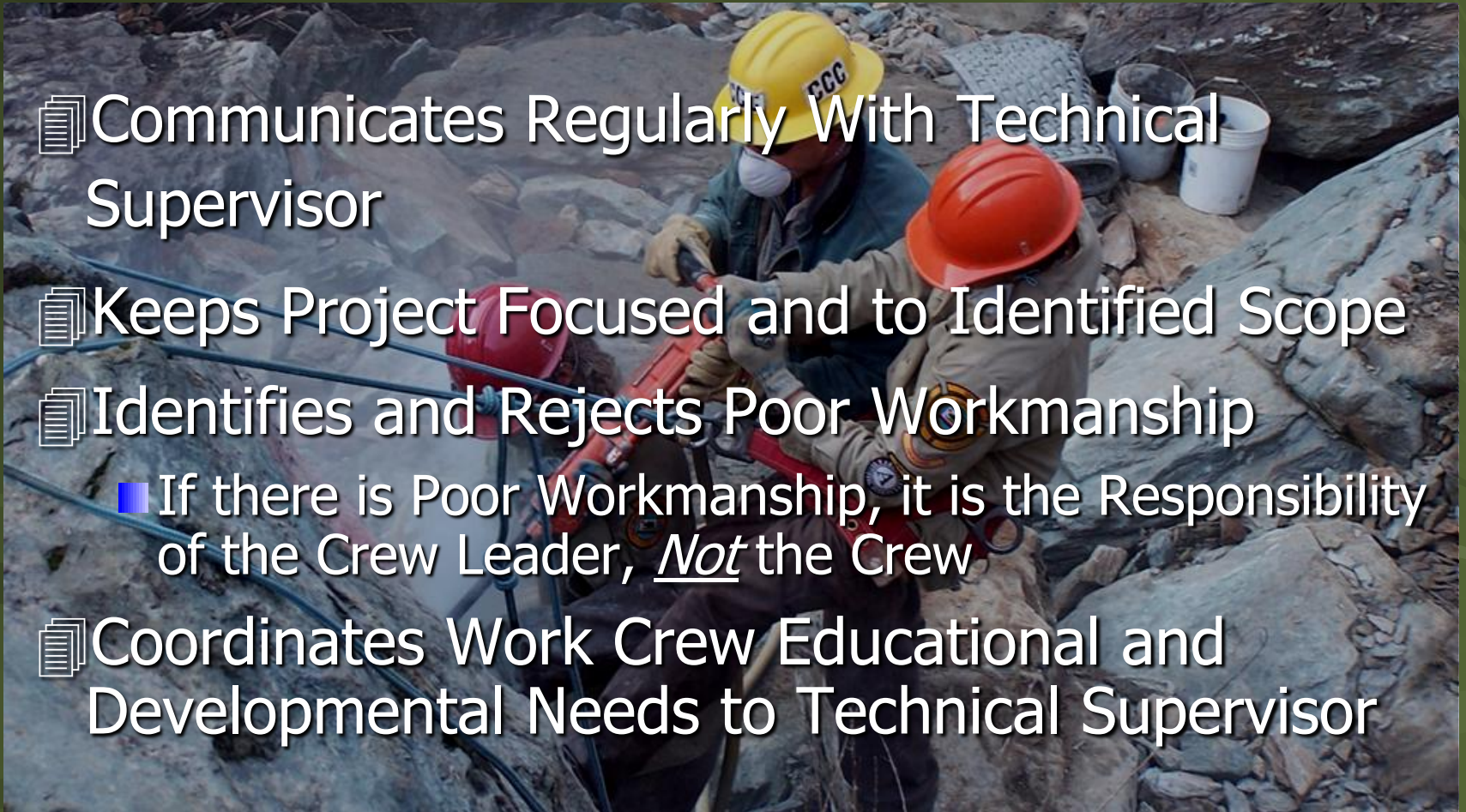
📄 Communicates Regularly With Technical Supervisor

📄 Keeps Project Focused and to Identified Scope

📄 Identifies and Rejects Poor Workmanship

■ If there is Poor Workmanship, it is the Responsibility of the Crew Leader, Not the Crew

📄 Coordinates Work Crew Educational and Developmental Needs to Technical Supervisor



Crew Communication Roles

- ☞ All Decisions Concerning Project Design, Materials and Quality Control is the Responsibility of the Technical Supervisor
- ☞ All Decisions Concerning the Employee Safety, Task Assignment and Supervision of the Work Crew is the Crew Leader
- ☞ Communication to the Crew Members Normally Goes through the Crew Leader
 - ☞ If you Directly Communicate Project Inconsistency to the Crew Members it Undermines the Authority of the Crew Leader

Exercise



What Types of Crews Do You Use for Trail Work?

- Brainstorm types of crews
- Record Types on Flip Chart

Crew Categories

- 
1. In-house/Force Account (agency)
 2. Service Corps and Partnerships
 3. Volunteers
 - A. Agency Volunteers
 - B. Service Groups – Sierra Club/Volunteer Vacations/Trail User Groups
 - C. International
 4. Contractors
 5. Inmates
 6. Mixed

Crew Personnel Management

- Safety
- Recruitment
- Training
- Retention

Safety



Task Hazard Analysis		
Task or Project:	Work Force:	Prepared By:
		Date:
		Technical Supervisor Review:
<u>Major Steps to Accomplish</u>	<u>Potential Sources of Accident</u>	<u>Preventive Measures</u>
List steps in the order they normally occur	After each step, note hazards of arrangement as well as techniques and habits of people that may produce accident	Note precautions or procedures to be followed to eliminate the potential source of accident
<ul style="list-style-type: none"> •Mobilize •Design Rigging System •Select Equipment •Set Rigging •Move Load •Remove Rigging •Demobilize 	<p>Crushing Injuries</p> <p>Slip, Trip and Fall</p> <p>Material Under Stress</p> <p>Equipment Limitations</p> <p>Pinch Points</p> <p>Overhead Loads</p> <p>Lifting</p> <p>Cuts and Abrasion</p>	<ul style="list-style-type: none"> •inspect cable, chain or wire rope for wear and replace •Know rated capacity of cable, chain or wire rope being used •Avoid overloading and shock loading

Training

↳ Creates Better Efficiencies



Training



Increases Skill Levels



Training



Decreases Costs



Training



Motivates

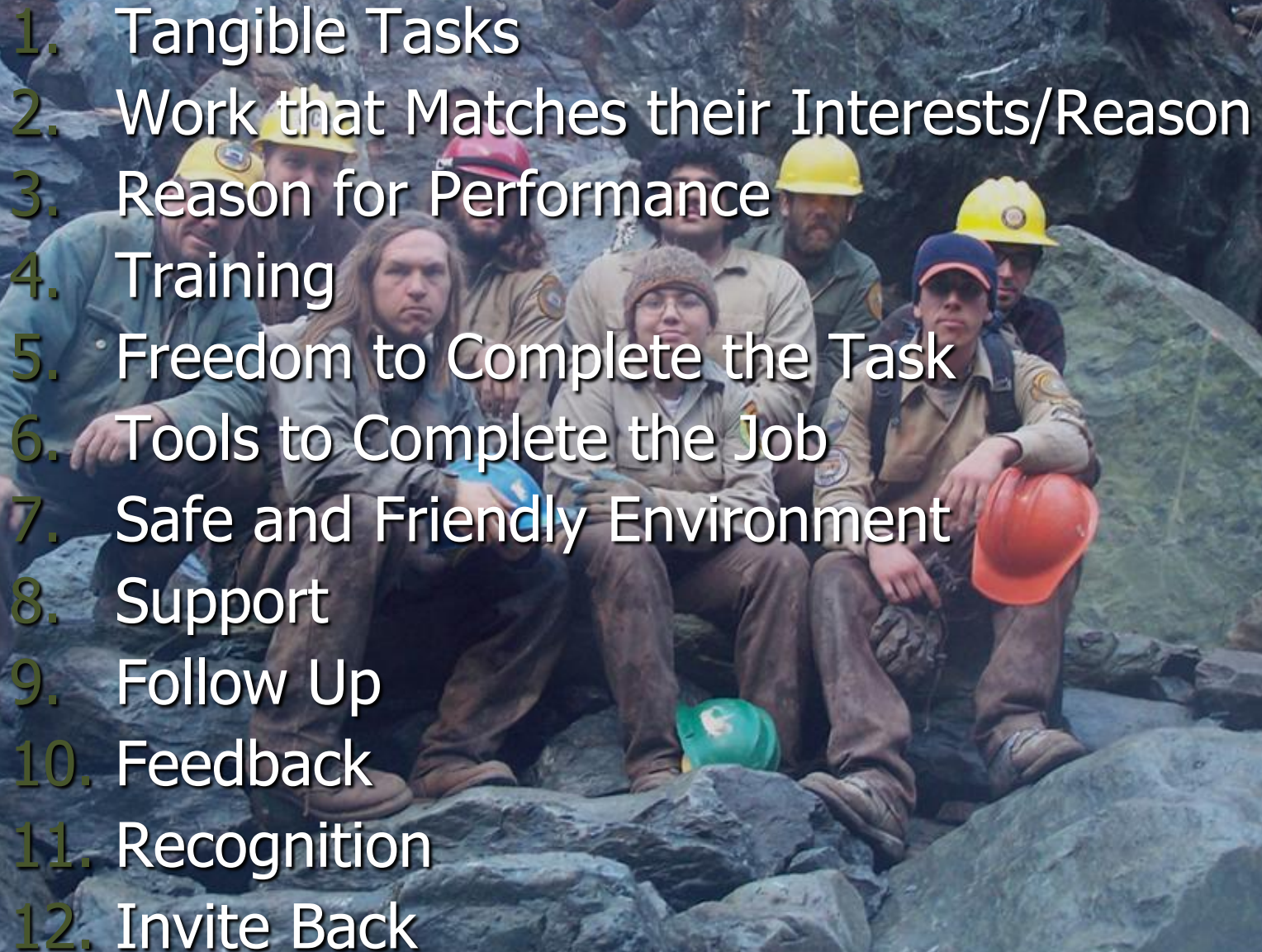


Retention and Motivation

Housing, Camps, Support, Awards..



Retention and Motivation

1. Tangible Tasks
 2. Work that Matches their Interests/Reason
 3. Reason for Performance
 4. Training
 5. Freedom to Complete the Task
 6. Tools to Complete the Job
 7. Safe and Friendly Environment
 8. Support
 9. Follow Up
 10. Feedback
 11. Recognition
 12. Invite Back
- 
- A group of nine workers, likely firefighters or emergency responders, are posed on a rocky, mountainous terrain. They are wearing various types of work clothes, including jackets, pants, and hats. Several workers are wearing hard hats in yellow, red, and blue. The background shows steep, rocky slopes and some sparse vegetation. The overall scene suggests a rugged, outdoor work environment.

Types of Crews and Trail Project Management

- ① Who Does What
- ② Select the Proper Crew Type for the Job Proposed



Project Agreements

1. What Will the Agency Do and/or Provide
2. What Will the Crew Do and/or Provide
3. Commitment Expectation by Agency or Crew

Typical Agency Supplied Items

☞ Specialized Tools and Equipment

☞ Should be Identified, Obtained or Purchased in Advance

☞ Maintained Throughout the Life of the Project



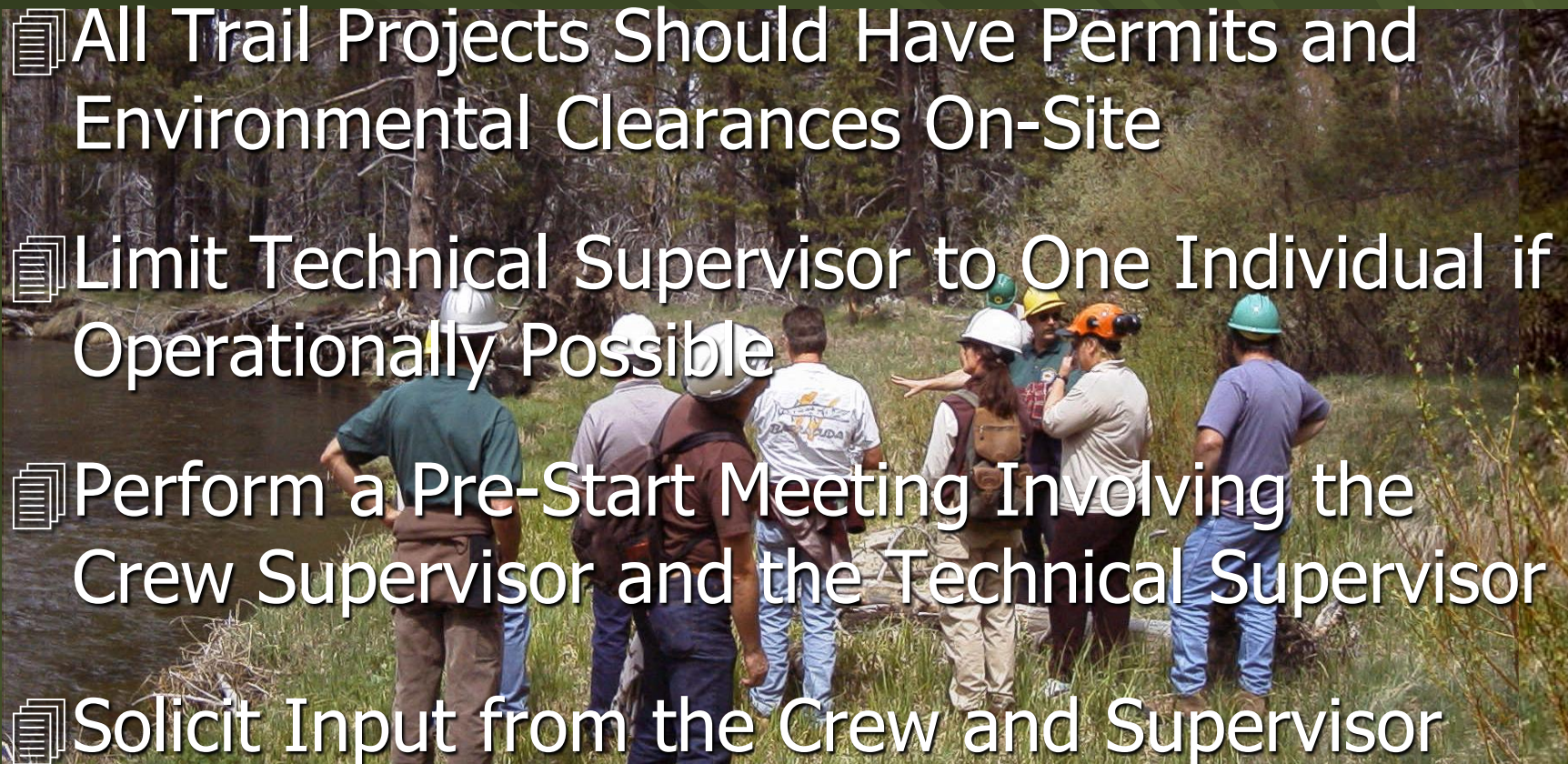
Typical Agency Supplied Items

Materials

- ☞ On-site Native Materials are Located and Approved
- ☞ Proper Harvesting Techniques Trained
- ☞ Purchased Materials
- ☞ Obtained Prior to Project Start




Criteria Needed For Project Starting

- 
- ☞ All Trail Projects Should Have Permits and Environmental Clearances On-Site
 - ☞ Limit Technical Supervisor to One Individual if Operationally Possible
 - ☞ Perform a Pre-Start Meeting Involving the Crew Supervisor and the Technical Supervisor
 - ☞ Solicit Input from the Crew and Supervisor

Criteria For Efficient Project Management

 Keep the Work Crew on the Assigned Project

 This Eliminates Confusion and Morale Issues

 The Work Crew is not a Catch all Work Force to be Shifted for Daily Priority Changes

How do We Pick the Right Crew for the Right Trail Project?

Factors to Consider



Complexity of Project



Logistics and Location



Time Lines and Budget

-environment/season

-available funding

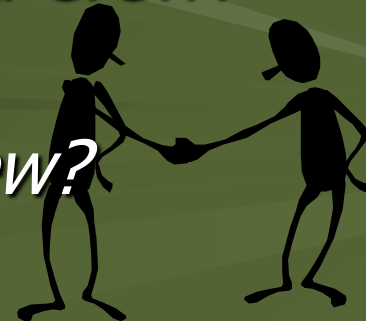
1	Sierra District Crew Schedule - 2003		Weekly Cost					May				June				July		
2	Inhouse Work Crews			April														
3	Crew			11	18	25	2	9	16	23	30	6	13	20	27	4	11	18
7	Trail Crew Rubicon Squad - Brian Woodson Laborer and Crew			Fire Training for New Crew Members Returning Crew R&T Sierra Gold	Empire Mine/South Yuba/Malakoff Road and Trail Logging Out and Culvert Cleaning	Lake Sector/Grover Hot Springs Road and Trail Logging Out and Culvert Cleaning CAT I Funded	DPR Trail Class Prep/Lost Lake Trail Rehab/Aspen Stand Management MCO Funded			Lost Lake Trail Rehab/Aspen Stand Management EIP Funded								
8																		
9	Project Cost		\$3,300		\$3,300	\$6,600	\$3,300	\$6,600	\$9,900	\$3,300	\$6,600	\$9,900	\$13,200	\$16,500	\$3,300	\$6,600	\$9,900	
10	Trail Crew Sugar Pine Squad -			Fire Training for New Crew Members Returning Crew R&T Sierra Gold	Sugar Pine ADA Retrofits - Bike Trail Phase II to Loop Three and Tie In Accessable Campsites to Shower Building / Hazard Tree Removal -ADA Funded				Bliss Campground F									
11																		
12	Project Cost		\$3,300		\$3,300	\$6,600	\$9,900	\$13,200	\$16,500	\$19,800	\$23,100	\$26,400	\$29,700	\$33,000	\$3,300	\$6,600	\$9,900	
13	Forestry Management Crew Red Squad Brian Robertson		Chris Butz Brian Robertson	Fire Training for New Crew Members Returning Crew Exotic Rem Sierra Gold	Grover Campground Opening	Plumas Eureka Campground Opening	Donner Memorial Campground Opening	Donner Memorial Plumas Eureka Trail and Road Logging Out and Culvert Cleaning			Vikingsholm Veg Management	Hydrology	D.L. Bliss Thin and Stack					
14																		
15	Project Cost		\$4,330		\$4,330	\$4,330	\$8,661	\$4,330	\$8,661	\$4,330	\$8,661	\$12,991	\$4,330	\$4,330	\$4,330	\$8,661	\$12,991	

Safety!



Final Thoughts of Crew Management

- 1. Determine Which Category of Crew to Use For Your Project and Why?*
- 2. What Specialized Tools and Materials the Agency Needs to Provide?*
- 3. What Does the Crew Need to Bring?*
- 4. What Level of Support and Supervision by Technical Supervisor is Needed?*
- 5. How Would You Recruit Your Selected Crew?*
- 6. What Special Logistics are Needed?*
- 7. What Training is Needed for Your Crew?*



Summary

- Crew Management is a Process
- Recognize Roles on Work Crews
- Crews Require Planning and Time Commitment
- We Can Maximize Trail Work Needed with Utilizing Multiple Crew Types
- Invest in Trail Crews for Positive Returns
- Treat Trail Crew Labor as a Valued Commodity